FUNDMARKET INSIGHT REPORT

REFINITIV LIPPER RESEARCH SERIES

MARCH 31, 2023

The Month in Closed-End Funds: March 2023

Performance

For the second month in a row, equity closed-end funds (CEFs) on average posted negative returns on a net-asset-value (NAV) and market basis, declining 0.26% and 1.74%, respectively, for the month. Meanwhile, for the second month in three, their fixed income CEF counterparts witnessed monthly gains on a NAV basis (+0.87%), but for the second month in a row a decline on a market basis (-0.45%) for March. For the quarter, both equity and fixed income CEFs posted plus-side returns on a NAV-basis, rising 2.42% and 3.06%, respectively.

U.S. markets started off on an up note in the beginning of March, with the Dow Jones Industrial Average snapping a four-week losing streak after the Institute of Supply Management said its February service index came in at a strong 55.1%, showing the U.S. economy is still in expansion mode. However, the following week, the Dow suffered its worst one-week return since June as investors digested news about liquidity concerns in the regional banking sector and assessed a stronger-than-expected nonfarm payrolls report. All three major U.S. stock indices suffered losses after investors learned that Silicon Valley Bank (SVB) was shut down by California regulators and in receivership under the Federal Deposit Insurance Corporation (FDIC), becoming the first FDIC-insured institution to fail this year. Adding to the angst, the Department of Labor reported the U.S. economy added 311,000 new jobs in February, beating expectations of 225,000, with the unemployment rate rising to 3.6%. The 10-year Treasury yield declined 23 bps to 3.70% as the odds of a 50-bps hike by the Federal Reserve Board on March 22 waned.

The Dow posted back-to-back weekly losses after banking sector worries resurfaced following SVB Financial Group filing for bankruptcy and data showed that banks borrowed $165 billion from the Fed. Adding to concerns, Credit Suisse Group was thrown a lifeline from the Swiss National Bank. In other news, the Conference Board said the U.S. leading economic index fell 0.3% in February, marking its eleventh consecutive monthly decline. The 10-year Treasury yield declined 31 bps on the week to settle at 3.39%.

U.S. stocks finished the following week higher despite continued banking concerns casting a pall over the market and the Fed hiking its key lending rate by 25 bps. U.S. and European bank stocks were back under pressure for the week after investors learned the cost of Deutsche Bank's credit-default swaps rose to their highest level since 2018, according to a Reuters report. The 10-year Treasury yield closed down one bp to 3.38%.

The following week all three broad-based indices witnessed significant advances, with the S&P 500 rising 3.5% after an agreement by First Citizens Bancshares (FCNCA) to purchase the deposits and loans of the defunct Silicon Valley Bank helped prop up sentiment for the banking industry and was generally supportive of the broader market. Midweek, technology issues rallied as concerns continued to ease about the health of the banking sector.

On the last trading day of the month, stocks ended sharply higher following a better-than-expected inflation report. The core personal consumption expenditures price index, the Fed's preferred inflation gauge that excludes energy and food prices, rose 0.3% in February for a year-over-year rate of 4.6%, which was slightly lower than analyst forecasts. In other news, the Bureau of Economic Analysis reported consumer spending rose 0.2% in February, while personal income edged up 0.3%. The 10-year Treasury yield rose 10 bps to 3.48%—but declined 44 bps for the month. The Nasdaq (+16.77%) posted its strongest quarterly return since Q2 2020.

The Month in Closed-End Funds: March 2023

- For the second consecutive month, equity CEFs (-0.26% on a NAV basis) on average witnessed negative performance while their fixed income CEF cohorts (+0.87%) posted gains for the second month in three.
- At month end, 13% of all CEFs traded at a premium to their NAV, with 18% of equity CEFs and 9% of fixed income CEFs trading in premium territory. The high yield CEFs macro-classification witnessed the largest widening of discounts for the month among Lipper's CEF macro-groups—292 bps to an 8.25% median discount.
- For the first month in 15, Utility CEFs (+2.93%) outperformed the other classifications in the equity CEF universe for March.
- For the first month in four, Corporate Debt BBB-Rated CEFs (+1.57%) outperformed the other classifications in the domestic taxable fixed income CEF universe.
- The municipal debt CEFs macro-group (+2.48%) outpaced its world bond (+0.12%) and domestic taxable bond (-0.03%) CEF counterparts.

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As regional bank liquidity fears receded and the Federal Reserve Board softened its language about future rate hikes after hiking its key lending rate by 25 bps on March 22, saying "some additional policy firming may be appropriate," U.S. equities rallied and Treasury yields declined. While the Treasury yield curve shifted down, it remained inverted for all maturities from the one-month to the seven-year yield. The two- and 10-year Treasury yield spread remained negative by 58 bps—narrowing 31 bps from February's month-end closing value.

During the month, the dollar weakened against the euro (-2.48%), the pound (-2.21%), and the yen (-2.45%). Commodity prices were mixed for the month, with front-month gold prices rising 7.66% to close the month at $1,969.00/oz. and front-month crude oil prices falling 1.79% to close at $75.67/bbl.

For the month, 60% of all CEFs posted NAV-based returns in the black, with just 53% of equity CEFs and 65% of fixed income CEFs chalking up returns in the plus column. For the second month in three, Lipper's world equity CEFs (+1.63%) macro-group outpaced its two equity-based brethren: domestic equity CEFs (+0.21%) and mixed-assets CEFs (-3.87%).

For the first month in 15, the Utility CEFs classification (+2.93%, February's laggard) moved to the top of the equity leaderboard, followed by Options Arbitrage/ Options Strategies CEFs (+2.52%) and Developed Markets CEFs (+2.28%). Income & Preferred Stock CEFs (-5.33%) was the laggard in the equity universe and was bettered by Real Estate CEFs (-1.61%) and Energy MLP CEFs (-0.73%). For the remaining equity classifications, returns ranged from negative 0.54% (Natural Resources CEFs) to positive 1.51% (Global CEFs).

Three of the five-top performing equity CEFs for March were warehoused in Lipper's Options Arbitrage/ Options Strategies CEFs classification. However, at the top of the leaderboard was **ASA Gold & Precious Metals Limited** (**ASA**, housed in the Sector Equity CEFs classification), rising 13.09% on a NAV basis and traded at a 15.68% discount on March 31. Following ASA were **Eaton Vance Enhanced Equity Income Fund II** (**EOS**, warehoused in the Options Arbitrage/Options Strategies CEFs classification), gaining 7.01% and traded at a 4.21% discount at month end; **GAMCO Global Gold, Natural Resources & Income Trust** (**GGN**, housed in the Sector Equity CEFs classification), gaining 6.65% and traded at an 8.73% discount on March 31; **GAMCO Natural Resources, Gold & Income Trust** (**GNT**, housed in the Options Arbitrage/Options Strategies CEFs classification), rising 5.44% and traded at a 16.43% discount at month end; and **Nuveen Nasdaq 100 Dynamic Overwrite Fund** (**QQQX**, also warehoused in Lipper's Options Arbitrage/ Options Strategies CEFs classification), returning 5.41% and traded at a 5.93% premium on March 31.

For the month, the dispersion of performance in individual equity CEFs—ranging from negative 21.00% to positive 13.09%—was significantly wider than February's spread and skewed more to the upside. The 20 top-

CLOSED-END FUNDS LAB

TABLE 1 CURRENT-MONTH PERFORMANCE, P&D, P&D SHIFTS (% OF UNIVERSE)

	NAV RETURNS POSITIVE	PREMIUM/DISCOUNT		NOW TRADING AT	
		BETTER	WORSE	PREMIUM	DISCOUNT
Equity CEFs	53	20	80	18	81
Bond CEFs	65	24	76	9	91
ALL CEFs	**60**	**22**	**78**	**13**	**86**

TABLE 2 AVERAGE NAV RETURNS, SELECTED PERIODS (%)

	MARCH	YTD	3-MONTH	CALENDAR-2022
Equity CEFs	-0.26	2.42	2.42	-9.85
Bond CEFs	0.87	3.06	3.06	-12.21
ALL CEFs	**0.39**	**2.79**	**2.79**	**-11.18**

TABLE 3 NUMBER OF IPOs, YTD VERSUS PRIOR YEAR

	MARCH 31, 2023	CALENDAR-2022
Conventional CEFs	0	5
Interval CEFs	8	22

TABLE 4 AVERAGE SIZE OF IPOs, SELECTED PERIODS, $MIL

THREE MONTHS THROUGH 02/28/2023	0
COMPARABLE YEAR-EARLIER THREE MONTHS	340
CALENDAR 2022 AVERAGE	202

TABLE 5 NUMBER OF MERGERS & LIQUIDATIONS, YTD VERSUS PRIOR YEAR

	MARCH 31, 2023	CALENDAR-2022
ALL CEFs	**6**	**21**

TABLE 6 MEDIAN PREMIUMS AND DISCOUNTS (%)

	30-DEC	31-JAN	28-FEB	31-MAR
Equity CEFs	-10.75	-8.62	-9.65	-10.73
Bond CEFs	-9.61	-8.18	-8.19	-9.88
ALL CEFS	**-9.92**	**-8.35**	**-8.60**	**-10.08**

Source: Refinitiv Lipper, an LSEG Business performing equity CEFs posted returns at or above positive 3.94%, while the 20-lagging equity CEFs were at or below negative 5.75%.

For the month, 121 CEFs in the equity universe posted returns in the red. The worst-performing fund was housed in Lipper's Sector Equity CEFs classification. At the bottom of the pile was **John Hancock Financial Opportunities Fund** (**BTO**), shedding 21.00% of its February closing NAV and traded at a 15.86% premium on March 31. The second worst-performing equity CEF was **First Trust Intermediate Duration Preferred & Income Fund** (**FPF**, warehoused in Lipper's Income & Preferred Stock CEFs classification), posting a 13.57% loss and traded at a 7.99% discount at month end.

The U.S. Treasury yield curve remained inverted but shifted down during the month, with all maturities except the one-month yield (nine bps gain), witnessing declines—but to a lesser extent at the short end. All maturities less than 10 years remained above the 10-year Treasury yield (+3.48%), with the two-year yield witnessing the sharpest drop (75 bps) to 4.06%. At month end, the two- and 10-year Treasury yield spread (-58 bps) narrowed 31 bps for March after hitting negative 107 bps on March 8 (the day after Federal Reserve Chair Jerome Powell told the Senate Banking Committee that the central bank was prepared to increase the pace of interest rate hikes if the data warranted).

For the second month in three, the municipal debt CEFs macro-group outpaced the other macro-groups in the fixed income universe, posting a 2.48% gain on average, followed by world income CEFs (+0.12%) and domestic taxable bond CEFs (-0.03%).

For the first month in four, investors pushed Corporate Debt BBB-Rated (Unleveraged) CEFs (+1.57%) to the top of the domestic taxable fixed income leaderboard, followed by Corporate Debt BBB-Rated (Leveraged) CEFs (+1.57%) and High Yield CEFs (+0.12%). Loan Participation CEFs (-0.32%) experienced the group's largest loss and was bettered by General Bond CEFs (-0.17%). On the world income side, the relative strong performance from Emerging Markets Hard Currency Debt CEFs (+1.03%) was partially offset by small losses from Global Income CEFs (-0.11%), keeping the subgroup in the chase for the month.

The municipal debt CEFs macro-group was the best performing macro-group for the month, climbing 2.48% on average, with all nine of the classifications in the group posting plus-side returns for March. The New Jersey Municipal Debt CEFs (+3.21%) classification posted the strongest returns of the group, followed by Pennsylvania Municipal Debt CEFs (+2.84%) and New York Municipal Debt CEFs (+2.83%), while General & Insured Municipal CEFs (Unleveraged) (+1.89%) was the group relative laggard. Single state municipal debt CEFs (+2.70%) outperformed their national municipal debt CEF counterparts (+2.38%) by 32 bps.

Three of the five top-performing individual fixed income CEFs were housed in Lipper's General & Insured Municipal CEFs (Leveraged) classification, with **PIMCO Municipal Income Fund III** (**PMX**) rising to the top of fixed income leaderboard, posting a 4.17% return and trading at parity on March 31. Following PMX were **Morgan Stanley Emerging Markets Domestic Debt Fund** (**EDD**, warehoused in Lipper's Emerging Markets Hard Currency Debt CEFs classification), chalking up a 4.01% return and traded at a 15.83% discount at month end; **PIMCO Municipal Income Fund** (**PMF**), gaining 3.93% and traded at a 1.22% premium on March 31; **PIMCO Municipal Income Fund II** (**PML**), rising 3.90% and traded at a 3.87% premium at month end, and **PIMCO California Municipal Income Fund II** (**PCK**, housed in the California Municipal Debt CEFs classification), returning 3.88% and traded at a 7.74% discount on March 31.

For the remaining funds in the fixed income CEF universe, monthly NAV-based performance ranged from negative 4.74% for **Invesco High Income 2024 Target Term Fund** (**IHTA**, housed in Lipper's U.S. Mortgage CEFs classification and traded at an 8.19% discount on March 31) to positive 3.84% for **Invesco California Value Municipal Income Trust** (**VCV**, housed in the California Municipal Debt CEFs classification and traded at a 9.44% discount at month end). The 20 top-performing fixed income CEFs posted returns at or above positive 3.13%, while the 20 lagging CEFs posted returns at or below negative 1.63% for the month. For March, 230 of the 355 fixed income CEFs witnessed positive NAV-based performance.

Premium and Discount Behavior

For March, the median discount of all CEFs widened 148 bps to 10.08%—wider than the 12-month moving average median discount (8.30%). Equity CEFs' median discount widened 108 bps to 10.73%, while fixed income CEFs' median discount widened 169 bps to 9.88%. The national municipal debt CEFs macro-group's median discounts witnessed the largest narrowing among the CEF macro-groups—48 bps to 10.01%—while the high yield bond CEFs macro-group witnessed the largest widening of discounts—292 bps to 8.25%.

Gabelli Utility Trust (**GUT**, housed in the Utility CEFs classification) traded at the largest premium (+103.7%) in the CEF universe on March 31, while **Destra Multi-Alternative Fund** (**DMA**, housed in the Income & Preferred Stock CEFs classification) traded at the largest discount (-44.00%) at month end.

For the month, 22% of all closed-end funds' discounts or premiums improved, while 78% worsened. In particular, 20% of equity CEFs and 24% of fixed income CEFs saw their individual discounts narrow, premiums widen, or premiums replace discounts. The number of funds traded at premiums on March 31 (56) was 19 less than the number on February 28 (75).

CEF Events and Corporate Actions

IPOs

There were no CEF IPOs in March, although the **Cantor Fitzgerald Sustainable Infrastructure Fund** did launch additional share classes (**Class C**, **CFCIX** and **Class I**, **CFIIX**) of their fund (**Class A**, **CAFIX**) which was first publicly offered on June 30, 2022. Cantor Fitzgerald Sustainable Infrastructure Fund is a continuously offered, non-diversified, closed-end investment management company. The fund is an interval fund that will provide limited liquidity by offering to make quarterly repurchases of shares at NAV of no less than 5% of the fund's shares outstanding. The fund's investment objective is to maximize total return, with an emphasis on current income, while seeking to invest in issuers that are helping to address certain United Nations Sustainable Development Goals through their products and services**.**

Rights, Repurchases, Tender Offers

The board of trustees of the **CBRE Global Real Estate Income Fund** (**IGR**) announced that it has approved the terms of the issuance of transferable rights to the holders of the fund's common shares as of the record date of March 9, 2023, to subscribe for additional common shares at a discount to market price. Holders of common shares as of the record date will be entitled to participate in the offer, which will include an oversubscription privilege. Additional information on the offer is set forth in a prospectus supplement dated February 27, 2023, which supplements the fund's currently effective shelf offering prospectus and statement of additional information. One right will be issued for every common share held as of the record date. The subscription ratio is one new common share for every five rights held (one for five). The subscription price will be determined based upon a formula equal to 95% of the average of the last reported sales price of a common share on the NYSE on the expiration date and each of the four immediately preceding trading days. Rights will be transferable and listed on the NYSE with the symbol "IGR RT." The offer period is from March 9, 2023 (record date), through April 6, 2023 (expiration date).

Mergers, Liquidations, and Reorganizations

The boards of trustees of the **Virtus Stone Harbor Emerging Markets Income Fund** (**EDF**) and **Virtus Stone Harbor Emerging Markets Total Income Fund** (**EDI**) have approved the reorganization of EDI with and into EDF. The surviving fund will continue to be known as Virtus Stone Harbor Emerging Markets Income Fund and will retain the EDF ticker symbol. At the annual meeting of shareholders of EDF scheduled for May 22, 2023, EDF shareholders will be asked to approve the fund's issuance of additional shares of common stock to affect the reorganization. No action is needed by shareholders of EDI in connection with the reorganization. The transaction is expected to qualify as a tax-free reorganization for federal income tax purposes and will be effected at each fund's respective NAV at the time of the reorganization.

Common and preferred shareholders of **Nuveen Ohio Municipal Quality Income Fund** (**NUO**) and **Nuveen Georgia Municipal Quality Income Fund** (**NKG**), and preferred shareholders of **Nuveen Municipal Credit Income Fund** (**NZF**), have approved a proposal to merge the funds. The mergers will combine each of NUO and NKG into NZF. Subject to the satisfaction of certain customary closing conditions, the transactions are expected to become effective before the market opens on April 17, 2023. The monthly distributions typically declared the first business day of the month for NUO, NKG, and NZF will be replaced by pre-merger distributions, which, to the extent declared, were announced on April 3, 2023, with a record date of April 14, 2023. The payable date will remain May 1, 2023. Following the transactions, the surviving fund, NZF, may also declare an additional post-merger distribution, which, to the extent made, is expected to have a record date of April 27, 2023 and be payable May 1, 2023. The total per-common share dollar amount of the pre- and, to the extent made, post-merger tax-exempt distributions received by common shareholders of each fund on May 1, 2023 are expected to be equal to or greater than the per-common share dollar amount of the prior month's tax-exempt distribution of each fund prior to the mergers.

Macquarie Global Infrastructure Total Return Fund Inc. (**MGU**) announced that the acquisition of substantially all of the assets of the fund by **abrdn Global Infrastructure Income Fund** (**ASGI**, the acquiring fund) was completed on March 10, 2023. Fund shareholders approved an agreement and plan of acquisition that provided for the reorganization at a special meeting of shareholders held on November 9, 2022. Relevant details as of the closing of the reorganization are as follows: abrdn Global Infrastructure Income Fund NAV: $20.3964; Macquarie Global Infrastructure Total Return Fund Inc. NAV: $27.1077, conversion ratio: 1.329043. Any applicable fractional shares will be paid as cash-in-lieu to the applicable holder.

The board of trustees of each of **abrdn Income Credit Strategies Fund** (**ACP**) and **abrdn Global Dynamic Dividend Fund** (**AGD**) (together the acquiring funds) completed the reorganizations of the following respective acquired funds, after close of regular business on March 10, 2023. ACP acquired **Delaware Ivy High Income Opportunities Fund** (**IVH**) acquiring fund NAV: $7.1889, conversion ratio: 1.615135. AGD acquired **Delaware Enhanced Global Dividend and Income Fund** (**DEX**) acquiring fund NAV: $10.5040, conversion ratio: 0.835659, and **Delaware Investments Dividend and Income Fund, Inc.** (**DDF**) acquiring fund NAV: $10.5040, conversion ratio: 0.801802. In the reorganizations, common shareholders of each acquired

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fund, respectively, received an amount of acquiring fund common shares with a NAV equal to the aggregate NAV of their holdings of the relevant acquired fund common shares, as determined at the close of regular business on March 10, 2023. There were no proposed changes to the current investment objective, strategies, structure, or policies of the acquiring funds, including each fund's monthly distribution policy as a result of the applicable reorganization.

First Trust Advisors L.P. (FTA) announced that the board of trustees of **First Trust Dynamic Europe Equity Income Fund** (**FDEU**), a closed-end fund managed by FTA, approved the reorganization of FDEU into a to-be created exchange-traded fund (ETF), that will be traded on the NYSE Arca and will be an actively managed ETF managed by FTA and subadvised by Janus Henderson Investors, FDEU's current subadvisor. Under the terms of the proposed transaction, which is expected to be tax-free, the assets of FDEU would be transferred to, and the liabilities of FDEU would be assumed by, the new ETF, and shareholders of FDEU would receive shares of the new ETF with a value equal to the aggregate NAV of the FDEU shares held by them. It is currently expected that the transaction will be consummated during 2023, subject to requisite shareholder approval of FDEU and satisfaction of applicable regulatory requirements and approvals and customary closing conditions.

KA Fund Advisors, LLC, which serves as the investment advisor to **Kayne Anderson Energy Infrastructure Fund, Inc.** (**KYN**) and **Kayne Anderson NextGen Energy & Infrastructure, Inc.** (**KMF**), announced that KYN and KMF have entered into a definitive merger agreement to combine the two funds. Pursuant to this agreement, KMF will be acquired by KYN. The merger has been unanimously approved by each fund's board of directors and is subject to KYN and KMF stockholder approval. Kayne Anderson anticipates sending offering and proxy materials to stockholders during the second quarter of fiscal 2023, with the stockholder meetings to approve the merger scheduled to take place on June 20, 2023. The record date for the stockholder meetings is March 27, 2023. Upon completion of the merger, the outstanding common stock of KMF will be exchanged for newly issued common stock of KYN, with KYN acquiring substantially all the assets and liabilities of KMF. The exchange ratio will be based on the relative per share NAV of each fund immediately prior to the merger's closing date. Subject to the merger being approved by KYN and KMF stockholders, KMF will commence a tender offer prior to the merger closing for 15% of its outstanding shares of common stock at a price equal to 95% of NAV per share.

Center Coast Brookfield MLP & Energy Infrastructure Fund (**CEN**) announced that its board of trustees approved a proposal by Brookfield Public Securities Group LLC, the investment advisor of CEN, to reorganize CEN into **Center Coast Brookfield Midstream Focus Fund**. The board of trustees that oversees the Focus Fund also approved the reorganization. The Focus Fund is an open-end fund that is a series of Brookfield Investment Funds, which is also managed by PSG using a similar investment strategy. The proposal to reorganize CEN into the Focus Fund will require the approval of CEN shareholders. A special meeting of shareholders of CEN is expected to be held in the third quarter of 2023 to consider the proposed reorganization. Subject to CEN shareholder approval at the special meeting, shareholders of CEN will be issued shares of the Focus Fund the aggregate NAV of which will equal the aggregate NAV (not the market value) of the common shares of CEN held immediately prior to the reorganization.

Other

BlackRock Advisors, LLC announced name changes for five BlackRock closed-end funds with contingent limited terms. The name changes are being made to increase awareness of the contingent limited term structure and the fact that there will be a liquidity event at NAV for trust shareholders, either at the dissolution date or in connection with an eligible tender offer. These name changes were effective on April 5, 2023. Each trust will continue to trade on the NYSE under its current ticker symbol. There are no changes to the trusts' investment policies or strategies in conjunction with the name changes. **BlackRock Science and Technology Trust II** (**BSTZ**) will change to **BlackRock Science and Technology Term Trust**, with a dissolution date of June 26, 2031; **BlackRock Health Sciences Trust II** (**BMEZ**) will change to **BlackRock Health Sciences Term Trust**, with a dissolution date of January 29, 2032; **BlackRock Capital Allocation Trust** (**BCAT**) will change to **BlackRock Capital Allocation Term Trust**, with a dissolution date of September 27, 2032; **BlackRock Innovation and Growth Trust** (**BIGZ**) will change to **BlackRock Innovation and Growth Term Trust,** with a dissolution date of March 25, 2033; and **BlackRock ESG Capital Allocation Trust** (**ECAT**) will change to **BlackRock ESG Capital Allocation Term Trust**, with a dissolution date of September 27, 2033.

For immediate assistance, feel free to contact Lipper Client Services toll-free at 877.955.4773 or via email at LipperUSClientServices@refinitiv.com. For more information about Lipper, please visit our website at refinitiv.com/en or lipperalphainsight.com

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